

# **Butler County Storm Water District**

Butler County, Ohio



## **NPDES Phase II Annual Report Permit Year 2008**

Ohio EPA General NPDES General Permit: OHQ000001  
Ohio EPA Facility Permit Number: 1GQ00051\*AG  
Effective: April 7, 2003 - April 6, 2008

# Butler County Storm Water District

## Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Gregory J. Wilkens 4/06/09

Gregory J. Wilkens, P.E., P.S.

Storm Water Engineer

Butler County

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## **INTRODUCTION**

The U.S. Environmental Protection Agency (EPA) in December 1999, initiated rules that after March 10, 2003 required local communities to implement and administer an NPDES Phase II Storm Water Program. This “unfunded mandate” requires that all local communities within specified urbanized areas must institute six minimum control measures and establish Best Management Practices (BMP’s) to substantially reduce storm water pollution to our lakes, rivers and streams.

In 2002, Butler County initiated a study to evaluate methods to address these new federal regulations. A Steering Committee was formed with representatives from many of the local governments in the County, including ten of the thirteen townships, five cities and one village, along with other interested parties including the Chamber of Commerce, developers, the Farm Bureau, conservation groups and the Ohio EPA. Over a nine month period, this group reviewed a number of issues including the NPDES Phase II permit requirements, alternative management structures to address this regulation, as well as methods and limits for program funding.

Based upon the recommendation of this Steering Committee, the Butler County Commissioners approved legislation in March 2003 to form the Butler County Storm Water District under Section 6117 of the Ohio Revised Code (ORC). The Commissioners also authorized submitting a permit application to Ohio EPA by March 10, 2003.

On April 7, 2003, the Ohio EPA issued a letter stating that the Butler County Storm Water District was approved for coverage under Ohio EPA NPDES General Permit OHQ000001.

Therefore, in fulfillment of the NPDES Phase II permit reporting requirements, the Butler County Storm Water District (Ohio EPA Facility Permit Number 1GQ00051\*AG) submits the following report to the Ohio EPA which includes the status of compliance with the permit conditions, an assessment of the appropriateness of the BMPs and progress towards achieving the measurable goals for each of the six minimum control measures. The report includes a summary of the activities to be undertaken during the next reporting cycle, including an implementation schedule. As required, the report also will include any changes to BMPs or measurable goals and results of information collected and analyzed, if any, during the reporting period. The report will also contain proposed changes to the SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements. Details will include notice of where we are relying on another government entity to satisfy some of our permit obligations, if applicable.

**Minimum Control Measure #1**

**PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS**

**Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities to the community, in accordance with 3.2.1.1 of Ohio's General Permit.**

**1.1 Media Awareness Packet**

**1.1a Activity: Media Release Packet**

**Date: 04/01/2008- 09/30/2008**

The Butler County Storm Water District has partnered with the Regional Storm Water Collaborative and the local media to create a television advertising campaign informing residents of illicit discharge and non-point source pollution issues. The result is a campaign that included 6 months of advertising between April 2008 – September 2008. During that time our message was broadcast by WCPO Channel 9 a total of 286 times.

For more information on the Regional Storm Water Collaborative and the non-point source pollution advertising campaign, please visit [www.savelocalwaters.org](http://www.savelocalwaters.org).

**1.1a Activity: Outdoor Billboard Advertising**

**Date: 04/01/2008- 09/30/2008**

The Butler County Storm Water District conducts an annual outdoor billboard advertising campaign. The boards delivers the messages such as “storm drains are not garbage cans”, “You Dump it, You Drink It”. The message prompts people to report pollution to the storm water hotline number. At a minimum, eight boards are placed throughout the county during a single showing. Billboards are also used to highlight public involvement activities such as the Clean Sweep of the Great Miami River and Great Miami River Days festival.

**1.2 Education Program for Local Schools**

**1.2a Activity: Water Curricula Program for children in grades K-12**

**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District, in conjunction with the Butler Soil and Water Conservancy District, reviewed and adopted the "Project WET Curriculum and Activity Guide" to be used as the Water Curricula Program for children in grades K-12. In order to develop a Water Curricula Program that would satisfy local school and state teaching standards as well as accommodate diverse learning styles and provide educators with a large selection of creative teaching strategies, the Butler County Storm Water District reviewed and adopted the "Project Wet Curriculum and Activity Guide". Teacher certification programs are held annually in various school districts throughout the county

**1.2b Activity: Education Program for Local Schools**

**Date: 04/07/2008 – 04/06/2009**

This year the Butler Soil and Water Conservation District conducted 91 education programs within NPDES Phase II affected areas in Butler County. These programs reached 2113 students and 138 adults. The Butler Soil and Water Conservation District offers programs and resources to local schools/groups. Full day workshops and introductory programs for the following programs are available: Project WET (Water Education for Teachers), Project WILD Aquatics, stream walks, stream monitoring, and On the Trail of Non-Point Pollution Sources.

**1.2c Activity: Public Education Program for Local Schools**

**Date: 04/07/2008 - 04/06/2009**

The Butler County Department of Environmental Services provides a variety of educational programs to school districts within Butler County. During 2008, the environmental educator made 465 presentations relating to water quality, litter prevention, waste reduction, recycling, conservation, environmental stewardship and pollution reduction that reached over 11,920 students.

**1.2d Activity: Public Education Program - Project WET**

**Date: 03/08/2008**

The Butler Soil and Water Conservation District held a Project WET workshop for three teachers at the Butler SWCD offices, in Hamilton, Ohio. Project WET focuses on the importance and value of water throughout our lives, as well as introducing the concept of watersheds and how water flows through and affects them. It shows educators how to integrate these ideas into almost any subject, including science, math, language arts, social studies and environmental studies. During the six-hour session, educators participated in several "hands-on, minds-on" activities, both indoors and out.

**1.2e Activity: Public Education Program - Southwest Ohio Science Institute (SOSI)**

**Date: 06/18/2008**

The Butler Soil and Water Conservation District held a Southwest Ohio Science Institute (SOSI) Level 1 workshop for the 4<sup>th</sup> grade. The focus of the event was water quality testing. This workshop provides equipment and training for 20 people.

The Southwest Ohio Science Institute is an Ohio Department of Education funded professional development program for teachers. Conducted through Miami University's Discovery Center, SOSI consists of one and two week summer workshops and online follow-up with iDiscovery during the academic year. The workshops help participants deepen their science content knowledge and gain confidence in using hands-on, inquiry based teaching methods.

**1.3 Storm Drain Labeling**

**1.3a Activity: Storm Drain Labeling**

**Date: 05/23/2007**

Six hundred and forty eight (648) storm drain labels installed on catch basins and illicit discharge information distributed to houses by community volunteers. Storm drain labels are simple and effective best management practices to prevent non-point source pollution from entering waterways in our community and those downstream. The labels are intended to make urban and suburban homeowners think twice before dumping material down the storm sewers and into rivers, streams, and ponds in their neighborhoods.

<b>Date</b>	<b>Activity</b>		<b>labels</b>
5/14/2008	Trenton by Edgewood FFA		<b>204</b>
6/12/2008	Fairfield Twp at Weathered Oaks Sub. by Fairfield East boy Scouts		<b>58</b>
7/5/2008	Fairfield Twp at Hunters Trace by a resident		<b>49</b>
7/29/2008	Liberty Twp at Trails of Four Bridges, Four Bridges, Lakota Meadows & Taylor Village- UC student		<b>82</b>
9/20/2008	New Miami with Edgewood Boy Scouts, OKI & Butler SWCD		<b>179</b>
10/10/2008	Ross Twp		<b>76</b>

#### **1.4 Document Decision Process**

**1.4a Activity: Phase II Application & Database Information System (PADIS)**

**Date: 04/07/2008 - 04/06/2009**

The Storm Water District's annual reporting activities were recorded and documented with the use of the Phase II Application & Database Information System (PADIS) provided by the Miami Conservancy District. The decision process documentation includes individual BMP's, measurable goals, and persons responsible for the program.

**Minimum Control Measure #2**  
**PUBLIC INVOLVEMENT/PARTICIPATION**

**Implement a public involvement and participation program which at a minimum complies with State and local public notice requirements, in accordance with 3.2.2.1 of Ohio's General Permit.**

**2.1 Public Meetings and Citizen Discussion Panels**

**2.1a Activity: Public Meetings and Citizen Discussion Panel – Butler County Fair**  
**Date: 07/20/2008 - 07/26/2008**

The Butler County Storm Water District presented a week long open-house forum at the Butler County Fair to allow the public an opportunity review and discuss the Butler County Storm Water Management Plan and the Annual Report. Informational brochures were also distributed about Non-point Source Pollution and Illicit Discharges.

**2.1b Activity: Public Presentation - Butler Soil and Water Conservation District Annual Meeting**  
**Date: 10/23/2008**

The Butler County Storm Water District presented a poster display at the Butler Soil and Water Conservation District's Annual Meeting. This meeting provided an opportunity to inform the public about the District's Storm Water Management Plan and allowed for public comment. Informational brochures were also distributed about non-point source pollution and illicit discharges.

**2.1c Activity: Public Presentation - Butler County Storm Water District Annual Meeting**  
**Date: 12/11/2008**

The Butler County Storm Water District held an annual meeting to highlight the Phase II activities conducted during the first permit term and allow an opportunity for public comment. Additional topics of discussion included the sustainability of post construction systems and additional permit requirements for the second permit term.

**2.1d Activity: Public Presentation – County Engineers Association of Ohio – 2008 Ohio Storm Water Conference and Trade Show**  
**Date: 03/03/2009 – 03/04/2009**

The County Storm Water Engineer participated in a discussion panel to discuss dedication and legal instruments for storm water systems located outside the public road right of way.

**2.2 Stream Clean-up & Monitoring**

**2.2a Activity: Volunteer Stream Monitoring - Butler County Stream Team**  
**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District teamed up with Miami University Institute for Environmental Science and the Butler Soil and Water Conservation District to promote and implement a monthly volunteer stream monitoring program to assess local stream quality. The partners jointly determined the criteria for establishing a successful volunteer monitoring program which includes a safe sample collecting method, a realistic sampling and data quality goal and a unique outreach approach. A protocol for the lab and field procedures was prepared and submitted to the Ohio EPA Credible Data Program. The supervisors of the volunteer Stream Team program are certified by Ohio EPA as level II Credible Data Collectors for Stream Habitat and Chemistry Assessments. There are 20 fixed locations from watersheds throughout Butler County where samples are collected by Stream Team staff and volunteers each month. Additional samples are also accepted from locations chosen by the volunteer collecting the sample. When samples are returned to the lab, they are analyzed for six parameters: nitrates, phosphates, bacteria, conductivity, total dissolved solids, pH, and turbidity. For more information concerning the Butler County Stream Team, visit : [www.butlercountystreamteam.org](http://www.butlercountystreamteam.org)

**2.2b Activity: Stream Walks**

**Date: 04/07/2008 - 04/06/2009**

The Butler Soil and Water Conservation District conducted 7 challenging, yet entertaining, educational stream and/or wetland walks for 316 children and 64 adults. Local streams included Elk Creek, Harpers Run, Great Miami River, Mill Creek, and Dry Fork Run. The Wetland visited was the State Route 129 wetland. Topics included water quality (chemical, biological, physical attributes) stream ecology, stream attributes, and watershed mapping.

**2.2c Activity: Stream Clean-up - Clean Sweep of the Great Miami River**

**Date: 05/10/2008**

On May 10th over 800 volunteers participated watershed wide in the "Clean Sweep of the Great Miami River" – an effort to clean up the entire 170-mile river in one weekend. In the Butler County area, approximately 389 participants collected 9 tons of litter and 352 tires at six sites long the Great Miami River in Butler County.

**2.3 Storm Water Hotline, Database, and Response Program**

**2.3a Activity: Storm Water Database and Response Program**

**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District created a database and response program to document citizen inquiries/complaints and accurately record contact information. The database and response program recorded over 120 customer inquiries for the year 2008. The database tracks information specific to the customers address, method of contact, nature of inquiry, and detail of inquiry/complaint resolution.

**2.3b Activity: Storm Water Hotline**

**Date: 04/07/2008 - 04/06/2009**

In order to provide easy access to Storm Water District Staff and to provide a quick response to citizen inquiries and complaints concerning storm water, the Butler County Storm Water District continues to dedicate a specific telephone number to serve as the Storm Water Hotline (513) 785-4120. The Storm Water Hotline provides prompt service to the water quality concerns of residents in the Butler County Storm Water District. The hotline enables citizens to call 24-hours a day, seven days a week to report any storm water concerns. The hotline number is published on the Storm Water District website and it is included in all Media Release information.

**2.3c Activity: Storm Water Hotline – Regional Storm Water Collaborative**

**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District has partnered with the Regional Storm Water Collaborative to create a centralized storm water hotline number (513-946-3999) for Butler, Hamilton and Warren Counties and the newest collaborative member, Northern Kentucky. The Storm Water Hotline provides prompt service to residents in a three county region. The automated phone service directs the caller to the appropriate jurisdiction and enables citizens to call 24-hours a day, seven days a week to report any storm water concerns. The hotline number was publicized through the use billboard advertisements. For more information on the Regional Storm Water Collaborative and the non-point source pollution advertising campaign, please visit <http://www.savelocalwaters.org>

**2.4 Document the Decision Process**

**2.4a Activity: Phase II Application & Database Information System (PADIS)**

**Date: 04/07/2008 - 04/06/2009**

The Storm Water District's annual reporting activities were recorded and documented with the use of the Phase II Application & Database Information System (PADIS) provided by the Miami Conservancy District. The decision process documentation includes individual BMP's, measurable goals, and persons responsible for the program.

**Minimum Control Measure #3**  
**ILLICIT DISCHARGE DETECTION AND ELIMINATION**

**Create a storm sewer system map, in accordance with 3.2.3.1.2 of Ohio's General Permit.**

**3.1 Illicit Discharge Plan**

**3.1a Activity: Illicit Discharge Plan**  
**Date: 04/07/2008 - 04/06/2009**

The Storm Water District has created an Illicit Discharge plan to document and respond to illicit discharges in a timely manner. Many times these discharges involve an accidental or unauthorized release of contaminants. Types of Illicit discharges could include spills, intentional dumping or industrial emissions. This plan details the steps to investigate, document, and report an illicit discharge as quickly as possible. The plan will be updated annually as additional BMPs are implemented.

**3.2 Locate Problem Areas**

**3.2a Activity: Locate Problem Areas**  
**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District created a database and response program to document and accurately record contact information regarding spill reports, illicit discharges, illegal dumping, and citizen complaints. The information obtained from the hotline and database can be mapped with the use of the county GIS system. Problem areas can be viewed graphically based on type, location, and frequency. This database is updated on a regular basis to help identify problem areas.

**3.3 Storm Sewer System Map with Outfalls**

**3.3a Activity: Storm Sewer System Mapping**  
**Date: 04/07/2008 - 04/06/2009**

Using "As-Built" data originating from the 1970's and forward, 100% of known sewer systems have been mapped in the Phase II affected areas within the county. Each year as new development occurs throughout the District, the sewer map will be reviewed and updated.

**3.4 HSTS List and Map**

**3.4a Activity: HSTS List and Map**  
**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District researched archived HSTS records held by the Butler County Health Department. The information can be viewed graphically with the use of the county GIS system. A map has been made identifying existing HSTS within the District. Updates are made on an annual basis. All new applications for HSTS will be added to that data.

**3.5 Illicit Discharge Ordinance**

**3.5a Activity: Develop a draft of Illicit Discharge Ordinance**  
**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District has selected outside legal counsel to advise us on this project. Passage of the draft ordinance is imminent pending the comments on the final draft from District members. The final draft is available on the District website: [www.stormwaterdistrict.org](http://www.stormwaterdistrict.org)

### **3.6 Non-Storm Water Discharge Plan**

#### **3.6a Activity: Non-Storm Water Discharge Plan**

**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District has drafted a non-storm water discharge plan to detect and eliminate non-storm water discharges, including illegal dumping. The plan will be reviewed and updated on an annual basis.

### **3.7 Dry Weather Screening**

#### **3.7a Activity: Dry Weather Screening**

**Date: 04/07/2008 - 11/02/2009**

The Butler County Storm Water District has contracted with the Miami University - Institute for Environmental Science for the dry weather screening and chemical testing of dry weather flows from the existing county storm sewer system. In 2008, 400 outfalls were observed during dry weather.

### **3.8 Chemical Field Tests**

#### **3.8a Activity: Chemical Field Tests**

**Date: 04/07/2008 - 04/06/2009**

The Butler County Storm Water District has contracted with the Miami University - Institute for Environmental Science for the dry weather screening and chemical testing of dry weather flows from the existing county storm sewer system. The number of chemical field tests conducted for the 2008 year permit was 200.

### **3.9 Coordinate screening & testing plan with Local Governments**

#### **3.9a Activity: Coordinate screening & testing plan with Local Governments**

**Date: 04/07/2007 - 04/06/2008**

The Butler County Storm Water District contracted with DLZ Ohio, Inc. for the mapping of outfalls and the chemical testing of dry weather flows from the existing county storm sewer system. This project included the development of a Protocol manual for screening and testing. The Screening and Testing plan is implemented each year by the Storm Water District and local governments.

### **3.10 Provide information about the Hazards of Illicit Discharges**

#### **3.10a Activity: Public Presentations - Hazards of Illicit Discharges**

**Date: 04/07/2008 - 04/06/2009**

In an effort to create awareness, Storm Water District officials conducted an informational campaign that included citizen groups placing labels on storm drains throughout neighborhoods within the District. Each labeling event includes a presentation to participants on the hazards of illicit discharges. Door hangers were also distributed to inform local residents about the purpose of the storm drain labels and the Hazards of Illicit Discharge.

#### **3.10b Activity: Public Presentations - Cincinnati Flower Show**

**Date: 04/23/2008**

A representative from the Butler County Storm Water District volunteered for the Cincinnati Flower Show to educate the public about the function and beauty of rain gardens and how they alleviate runoff and stormwater management concerns. Information was made available on rain gardens, native perennial plant choices and composting. The display included an installed Rain

Garden, a table top "slice" through a rain garden showing soils, roots and real-time percolating water; several styles of composting bins, and a small scale green roof.

**3.10c Activity: Public Presentations – Girls Go Tech Program – (New Miami, Ohio)**

**Date: 04/24/08**

The New Miami High School, as part of a grant project, created an after school program to introduce young ladies to technical professions. A representative from the Storm Water District spoke to the students about career possibilities in the water resources field. Topics covered included engineering, drainage, floodplains, storm water, groundwater, and non-point source pollution.

**3.10d Activity: Public Presentations – US Bank Volunteer Fair**

**Date: 05/06/2008**

Regional and local organizations, including the Butler County Storm Water District, were at the event to encourage volunteer participation in local charity events. Information was distributed to over 100 employees regarding storm drain labeling, volunteer monitoring, the Great Miami River Days festival and the Clean Sweep of the Great Miami River.

**3.10e Activity: Public Presentations – Lakota School District**

**Date: 05/07/2008**

At the invitation of a local school teacher, a representative of the Butler County Storm Water District spent an afternoon with fifty (50) first grade children and 12 adults to discuss the form and function of streams, the design and function of the storm sewer system, and the hazards of illicit discharges and non-point source pollution. The group traveled to the Mill Creek at several locations to study and discuss terms such as headwaters, confluence, tributary, erosion, and restoration. At the end of the trip students placed storm drain labels on the catch basins and placed information at all houses along three streets behind their school.

<http://www.journal-news.com/search/content/oh/story/news/local/2008/05/14/pjw051508water.html>

**3.10f Activity: Public Presentations - Earth Day (Hamilton, Ohio)**

**Date: 05/25/08**

More than 20 state, regional and local environmental organizations, including the Butler County Storm Water District, were at the event to encourage recycling, resource conservation and awareness of local environmental issues. Downtown workers and passersby couldn't miss the action at the corner of High Street and Martin Luther King Boulevard. An estimated 300 people stopped by to improve their environmental awareness.

**3.10g Activity: Public Presentations - Butler County Fair**

**Date: 07/20/2008 - 07/26/2008**

The Butler Soil and Water Conservation District participated in the Butler County Fair – Farm Zone with an interactive stream table and a clean versus polluted stream display to educate children on water quality and the hazards of illicit discharges. Also displayed was the Hamilton County SWCD's Soil Tent. This tent mural showed the underground world of wildlife, pollution and much more.

**3.10h Activity: Public Presentations – Mill Creek Watershed Council of Communities – 5K Run**

**Date: 09/28/2008**

Carp Diem is a 5K Run organized by the Mill Creek Watershed Council of Communities. Proceeds from the event support the annual programs conducted by MCWCC. An environmental fair titled, "Protect Our Watershed" is coordinated as part of the day's events. Local environmental groups present displays and provide information on the role they play in protecting the Mill Creek watershed. For more information about this event, visit:

[www.millcreekwatershed.com](http://www.millcreekwatershed.com)

**3.10i Activity: Public Presentations – Heavenly Acres – Wayne Township**

**Date: 11/10/08**

Meeting with property owners to discuss their neighborhoods storm water issues including; operation & maintenance, illicit discharge, health & safety and household sewage treatment systems. Residents are concerned about the future of their neighborhood and required

replacement of storm sewers on their properties. Township trustees and District staff met and formalized several options the neighborhood can explore. (10 people in attendance)

**3.10j Activity: Public Presentations – Lyonhil Home Owners Association – West Chester  
Date: 12/12/2008**

The District met with HOA board members, residents, legal council and engineer to discuss a court settlement surrounding the neighborhoods retention pond. Over a short period of time, the pond has silted in and requires maintenance. The HOA has been fighting several lawsuits from area residents regarding the pond and how it has become a nuisance. The HOA wants to drain the pond and reconstruct the outlet to form a dry detention basin. Residents in the neighborhood and legal council want to eliminate what they view as a potential health risk. (8 people in attendance)

**3.10k Activity: Public Presentations - Test Your Well Water Event  
Date: 03/16/2009**

Butler County Storm Water District participated with a display and provided information on the hazards of illicit discharge to over 60 residents. This event was a free and confidential testing of well water samples for nitrates occurred at the St. Clair Township Fire Department. Test Your Well events invite private well owners to bring a sample of their well water to be tested for the presence of nitrates and other contaminants at no charge. An innovative aspect of the Test Your Well concept is utilizing students, community organizations and other volunteer groups to offer a valuable service in a non-threatening atmosphere. The events also offer teachable moment for well owners. They learn about non-point source contamination, receive information about water quality and pollution prevention, and have the opportunity to ask questions while their water is tested. Those conducting the event also benefit. They learn about the importance of environmental health, better understand their role in safeguarding source water quality, and have a raised awareness about source water that can be passed on in their communities.

**3.10l Activity: Public Presentations - Butler County Stream Team Annual Dinner  
Date: 04/04/2009**

Displays from the Butler County Storm Water District, Butler Soil & Water Conservation District, and the Institute of Environmental Sciences were available for browsing and the coordinators were available for questions. The Storm Water District gave a short presentation on how the monitoring data could be used by the district to locate and eliminate illicit discharges.

**3.10m Activity: Public Presentations – Stonegate Home Owners Association – West Chester  
Date: 04/06/2009**

District met with property owners to discuss the storm water detention basins in the community. There are two water quality basins that continually hold water due to obstruction of the water quality orifice. District discussed the need for continued maintenance and operation of the facility with the owners. Property owners discussed the need for storm water treatment and were told about the NPDES program.

**3.11 Illicit Discharge Brochure**

**3.11a Activity: Illicit Discharge Brochure  
Date: 10/17/2008**

In an effort to inform the general public of hazards associated with illicit discharges and improper disposal of waste, the Butler County Storm Water District has distributed "Discover Storm Water" and "Watershed Protection" Project WET activity guides to 1500 children at the Butler County Water Festival.

**3.11b Activity: Illicit Discharge Brochure  
Date: 03/26/2009**

In an effort to inform public employees, businesses and the general public of hazards associated with illicit discharges and improper disposal of waste, the Butler County Storm Water District has distributed "After the Storm" & "Discover Storm Water" brochures to 13 member governments.

Thirty copies of each brochure (780 copies total) were provided to co-permittees for distribution at public meetings and in government building lobby areas.

### **3.12 News Releases on Illicit Discharges**

#### **3.12a Activity: Illicit Discharge and Non-point Source Pollution Media campaign Date: 04/01/2008 - 9/30/2008**

The Butler County Storm Water District has partnered with the Regional Storm Water Collaborative and the local media to create a television advertising campaign entitled "Don't Feed the Storm Drain". The campaign informed residents about the hazards of illicit discharge and non-point source pollution. The result is a campaign that included 6 months of advertising between April 2008 – September 2008. During the six month period, a mix of sixty second commercials and thirty second "Did You Know" vignettes featuring meteorologist Steve Raleigh was broadcast by WCPO Channel 9 a total of 286 times.

In addition to reaching residents of 67 Phase II regulated communities, who will save the expense of implementing the program individually, we were able at no added cost to reach the non-urbanized areas of Butler, Hamilton, and Warren counties.

For more information on the Regional Storm Water Collaborative and the non-point source pollution advertising campaign, please visit [www.savelocalwaters.org](http://www.savelocalwaters.org).

#### **3.12b Activity: News Releases on Illicit Discharges - Clean Sweep of the Great Miami River Date: 06/01/2008**

A media release was prepared and distributed concerning Clean Sweep of the Great Miami River. The article highlighted stream clean-ups as a simple best management practice (BMP) to improve water quality in urban and suburban settings. Stream clean-ups are an excellent method to allow local citizens a chance to see and experience their rivers and streams, while at the same time providing citizens with the opportunity to understand how the impairment of water quality in their community is caused by illicit discharges and illegal dumping. This information was published in the Summer edition of the Butler Soil and Water Conservation District newsletter (vol.65 issue #2).

### **3.13 Monitor BMP's**

#### **3.13a Activity: Monitor BMP's Date: 04/07/2008 - 04/06/2009**

Several BMPs for the Butler County Engineer's Office were designed and installed at the property located at 1921 Fairgrove Avenue in Hamilton, Ohio. The facility improvements include a bioretention area, two oil & grit separators, and a water quality pond. The design of the bioretention area allows for the collection and treatment of storm water runoff from existing paved areas. In addition to providing pollutant removal, the bioretention facility adds aesthetic appeal to a currently bare area. The best management practices are inspected and maintained throughout the year as necessary.

### **3.14 Document the Decision Process**

#### **3.14a Activity: Phase II Application & Database Information System (PADIS) Date: 04/07/2008 - 04/06/2009**

The Storm Water District's annual reporting activities were recorded and documented with the use of the Phase II Application & Database Information System (PADIS) provided by the Miami Conservancy District. The decision process documentation includes individual BMP's, measurable goals, and persons responsible for the program.

**Minimum Control Measure #4**  
**CONSTRUCTION SITE STORM WATER RUNOFF CONTROL**

Create an ordinance or other regulation requiring erosion and sediment controls on disturbed sites equal to or greater than one acre that includes sanctions to help ensure compliance, in accordance with 3.2.4.1.1 of Ohio's General Permit.

**4.1 Construction Control Ordinance**

**4.1a Activity: Construction Control Ordinance**

**Date: 03/12/2007 - 03/12/2007**

The Butler County Subdivision regulations were revised in March of 2007 to update sediment and erosion control requirements to current NPDES Construction General Permit requirements. This includes a permitted process with storm water pollution plan review for all parcels within the county.

**4.2 Runoff Control BMP's**

**4.2a Activity: Runoff Control BMP's**

**Date: 04/07/2008 - 04/06/2009**

The Butler County subdivision regulations currently include provisions for peak runoff control. The regulations are being reviewed to include more stringent requirements. The BMP plan will be consistent with the ODNR Rain Water and Land Development Manual and the ODOT Location and Design Manual. Additional requirements have been drafted and have been proposed to Ohio Valley Development Council (OVDC) and Home Builders Association (HBA) for comments.

**4.3 Erosion control BMP's**

**4.3a Activity: Erosion Control BMP's**

**Date: 03/12/2007**

Erosion and Sediment Control Regulations: Article VII were adopted as part of the of the Butler County Subdivision regulations on March 12, 2007. The changes were effective during the Summer of 2007. For more information, visit: <http://www.butlerswcd.org/Urban/ESC.htm>

**4.4 Sediment Control BMP's**

**4.4a Activity: Sediment Control BMP's**

**Date: 03/12/2007**

Erosion and Sediment Control Regulations: Article VII were adopted as part of the of the Butler County Subdivision regulations on March 12, 2007. The changes were effective during the Summer of 2007. For more information, visit: <http://www.butlerswcd.org/Urban/ESC.htm>

**4.5 Site Plan Review and Inspection Process**

**4.5a Activity: Site Plan Review and Inspection Process**

**Date: 04/07/2008 - 04/06/2009**

Site Plans are currently being reviewed for drainage and runoff. A mechanism is in place with the County Building Department to have the County Engineers Office and the Storm Water District to review any permit application for commercial development. As new regulations are implemented under the Butler County Subdivision regulations, the site plan review and inspection process will

be updated as part of the building permit process. County permit database is being updated to account for plan review and inspection requirements of Ohio EPA permit OHQ000002.

**4.5a Activity: Site Plan Review and Inspection**  
**Date: 04/07/2008 - 04/06/2009**

<b>Preconstruction Annual Reporting</b>	
Applicable Sites in Jurisdiction	570
Preconstruction Plan Reviews	577
Number of Site Inspections	17,731
Number of Violation Letters Issued	1,316
Number of Enforcement Actions Taken	8
Number of Complaints Received	7
<b>Post Construction Annual Reporting</b>	
Applicable Sites in Jurisdiction	570
Preconstruction Plan Reviews	577
Number of Inspections Performed to Ensure As- Built Per Requirements	713

**4.6 Document the Decision Process**

**4.6a Activity: Phase II Application & Database Information System (PADIS)**  
**Date: 04/07/2008 - 04/06/2009**

The Storm Water District's annual reporting activities were recorded and documented with the use of the Phase II Application & Database Information System (PADIS) provided by the Miami Conservancy District. The decision process documentation includes individual BMP's, measurable goals, and persons responsible for the program.

**Minimum Control Measure #5**

**POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

**Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, in accordance with 3.2.5.1.1 of the Ohio General Permit.**

**5.1 Post construction Ordinance with Riparian Corridor (RC) and Buffer Zone (BZ)**

**5.1a Activity: Post Construction Ordinance with Riparian Corridor (RC) and Buffer Zone (BZ)  
Date: 01/22/2009 & 01/29/2009**

During the 2008 year, District staff participated in the evaluation and up-date of the county's floodplain regulations. The existing regulation required a 75' stream buffer but only along the Mill Creek. After much discussion and proactive participation by the development community, the 75' stream buffer has been expanded to all Second Order and greater USGS Blue Line Streams. This buffer area now restricts several activities that were once unrestricted. The riparian (buffer) begins at the top of bank and extends 75' on either side of the stream providing excellent floodplain & water quality management (Committee consisted of 15-20 engineers, developers and county staff) Regulations became effective March 1, 2009.

**5.2 Long Term RC and BZ Stability Plan**

**5.2a Activity: Flood Damage Prevention Regulations  
Date: 04/07/2008 - 04/06/2009**

Home Owner Associations (HOA), Property Owner Associations, Township Parks maintain Buffer zones. A Flood Permit is required from the County to allow any maintenance or work occurring in these areas. Any activity performed within the buffer zone is subject to the review of the floodplain administrator. County flood regulations require RC and BZ on all blue line streams. (Butler County Flood Damage Prevention Regulations 5.2-11 as adopted 03/01/2009). Property developing adjacent to RC and BZ is required to install temporary signage and delineate the boundary of the buffer.

**5.3 Update Zoning Ordinances**

**5.3a Activity: Update Zoning Ordinances  
Date: 04/07/2008 - 04/06/2009**

During the month of January, the District met with West Chester, Fairfield, Liberty and St. Clair Townships to discuss alternative storm water practices and how they might relate to their zoning resolution. Currently, zoning restricts potential storm water BMP's that a developer might want to incorporate into their plan. Preliminary discussions have yielded a potential storm water overlay district in St. Clair, bio-retention and pervious pavements in Fairfield, and a reduction modification to West Chester's maximum impervious area clause. The District will be drafting preliminary language for consideration and incorporation into the various zoning resolutions.

**5.3b Activity: New Miami Source Water Protection Overlay  
Date: 04/07/2008 - 04/06/2009**

In a project sponsored by the Ohio-Kentucky-Indiana Regional Council of Governments (OKI), 10 project partners, including the Butler County Storm Water District, have agreed to pool their talents for identifying potential sources of drinking water pollution in Butler County. The Village of New Miami has joined the project to develop a drinking water protection plan for the village's public water system. The purpose of this plan is to prevent contamination of New Miami's drinking water source, which is groundwater underlying a small part of the village and a larger area to the north in St. Clair Township. The relationship between surface water and ground water underlies

project plans. The Great Miami River and its tributaries replenish an underground aquifer that provides drinking water to more than a 500,000 people in a 15-county region.

**5.3c Activity: St. Clair Comprehensive Plan**

**Date: 11/01/2008 - 11/06/2009**

From November 2007 to November 2008, St. Clair Township met monthly to up-date its comprehensive plan which now addresses several categories including; Source Water Protection, Storm Water Management, Natural Systems, Transportation and Land use. Throughout the process, goals and objectives were identified by the committee and residents of the township. From this process, policies were drafted and an implementation matrix was developed. (Attendance varied but was consistently around 20)

Committee Meeting Dates

Nov. 26, 2007

Dec. 10, 2007

Feb. 25, 2008 discussed riparian setbacks & natural systems

Mar. 24, 2008

Apr. 21, 2008

May 19, 2008 discussed storm water – source water protection

June 23, 2008 discussed storm water - transportation

July 28, 2008

Aug. 25, 2008 source water management

Sep. 22, 2008 conservation development

Oct. 27, 2008

Nov. 17, 2008

Open House

Dec. 8, 2008

May 12, 2008

Public Meeting

Jan. 28, 2008

**5.3d Activity: Butler County Planning Commission Presentation**

**Date: 12/09/2008**

The Planning Commission, township administrators and zoning staff attended a presentation where development requirements and procedures were discussed. Topics included zoning (open space & conservation), land use planning, floodplain administration, sediment & erosion control, storm water management (quality & quantity) and alternative storm water practices. After the presentation, a tour of the District's bio-retention basin took place. (40 people in attendance)

**5.3e Activity: St. Clair Township Zoning**

**Date: 02/13/2009 & 03/19/2009**

As part of the township's comprehensive plan, the Storm Water District engaged the zoning administrator to discuss storm water requirements within their zoning resolution. A meeting with Zoning Administrators occurred on February 13<sup>th</sup> and a meeting with the Zoning Board occurred on March 19<sup>th</sup>. Nearly half of the township is overtop a sole source aquifer where the lack of recharge was identified in the 2007 Trenton Area Watershed Study. St. Clair has identified this resource as a high priority in their comprehensive plan and is committed to the protection of their source water. The District will be drafting language for the township to insert into their zoning resolution as it pertains to pervious pavements, bio-retention and infiltration practices. In discussions, it was determined an overlay district is needed overtop the aquifer limits.

#### **5.4 Long Term Stability of Zoning Ordinances**

**5.4a Activity: Long Term Stability of Zoning Ordinances**

**Date: 04/07/2008 - 04/06/2009**

Long Term Stability of Zoning Ordinances is based upon the requirement in the Ohio Revised Code for changes and modification of zoning code. Zoning ordinances will always be in effect and enforced through each entities respective zoning board.

#### **5.5 Document the Decision Process**

**5.5a Activity: Phase II Application & Database Information System (PADIS)**

**Date: 04/07/2008 - 04/06/2009**

The Storm Water District's annual reporting activities were recorded and documented with the use of the Phase II Application & Database Information System (PADIS) provided by the Miami Conservancy District. The decision process documentation includes individual BMP's, measurable goals, and persons responsible for the program.

**Minimum Control Measure #6**

**POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

**Develop and implement an operation and maintenance program that includes a training component to prevent/reduce pollutant runoff from municipal operations, in accordance with 3.2.6.1.1 of Ohio's General Permit.**

**6.1 Train Government Employees**

**6.1a Activity: Train Government Employees - BCDES Administrative Center  
Date: 04/07/2008 - 04/06/2009**

A Pollution Prevention (P2) program has been implemented for the three floors of administrative and office space utilized by BCDES. P2 efforts focus on solid waste reduction, recycling awareness and energy efficiency.

**6.1b Activity: Train Government Employees - LeSourdsville Regional Water Reclamation Facility  
Date: 04/07/2008 - 04/06/2009**

A P2 program focused on solid waste reduction, recycling awareness and energy efficiency has been implemented for this facility.

A Storm Water Pollution Prevention Plan (SWPPP) has been developed and implemented for LeSourdsville per a requirement of the facility's general industrial storm water discharge permit. The SWPPP requires regular site monitoring, inspections, and employee training. The Plan also requires the identification of storm water pollutant sources, and the implementation of best management practices (BMPs) for the control of said sources. BCDES' Regulatory Compliance Team, which meets twice per month, ensures that all requirements related to storm water management are met.

A Spill Prevention Control and Countermeasure (SPCC) Plan has also been developed and implemented for this facility. Monthly inspections and annual training (emergency response) are also required by the Plan. BCDES' Regulatory Compliance Team, which meets twice per month, ensures that all requirements related to spill prevention and control are met.

**6.2 Maintenance Schedule**

**6.2a Activity: Maintenance Schedule  
Date: 12/21/2007 – 04/06/2009**

On December 21, 2007 the Butler County Storm Water District selected URS Corporation to develop and implement a Storm Water Pollution Prevention Plan for all municipal facilities subject to this provision within the district. Each plan contains elements for operation and maintenance programs, pollution prevention/good housekeeping employee training programs, and a list of appropriate best management practices (BMPs) specific to each facility. As of March 2009, sixteen Pollution Prevention and Good Housekeeping (PPHG) plans and seven Spill Prevention and Control Countermeasure (SPCC) plans have been created for District member facilities.

**6.3 Inspection Plan for BMP's**

**6.3a Activity: Inspection Plan for BMP's  
Date: 04/07/2004 - 04/06/2008**

The Butler County Engineers Office coordinates and plans inspections of all drainage structures within the District on an annual basis. Facilities and structures have maintenance performed as necessary based upon inspection results. A report is issued annually to the County commissioners on all inspection and maintenance activities.

## **6.4 Illegal Dumping and Control Program**

### **6.4a Activity: Illegal Dumping and Control Program**

**Date: 04/07/2008 - 04/06/2009**

The District's Illegal Dumping and Control Program includes radio advertising, billboard advertising, clean-up events, recycling events, and anti-dumping signage posted at local stream crossings. Program activities are reviewed annually and additional elements will be added as needed.

### **6.4b Activity: P.R.I.D.E. Program**

**Date: 01/01/2008 - 12/31/2008**

PRIDE stands for "Providing Responsibilities for Inmates through Duties for the Environment". Led by the litter crew supervisor, inmates from the Resolutions medium security prison collect litter along public rights-of-ways and in parks and, sometimes, assist in the removal of waste from illegal dumpsites.

- PRIDE Crew "common litter" collected in 2008 (in pounds): 27,878
- PRIDE Crew hours worked in 2008: 4,584 hours
- PRIDE Crew miles traveled in 2008: 645.9 miles

### **6.4c Activity: Computer Recycling Event**

**Date: 04/01/2008 - 09/30/2008**

Computer Recycling events are sponsored twice a month by Butler County's Solid Waste Management District. The 2008 events were held at the Butler County Filling Station (1715 Fairgrove Ave.) resulted in the collection of 115 tons of electronics and computer equipment.

### **6.4d Activity: Household Hazardous Waste Program**

**Date: 06/01/2008 - 09/30/2008**

Household Hazardous Waste Recycling Events are held weekly from June to September and are sponsored by Butler County's Solid Waste Management District. The 2008 events resulted in 116 tons of household hazardous waste collected for safe processing, disposal, or recycling.

### **6.4e Activity: Curbside Freon Appliance Collection Program**

**Date: 04/01/08 – 12/31/08**

Curbside freon appliance collection is sponsored by Butler County's Solid Waste Management District. The 2008 program resulted in the collection of 61.6 tons of freon containing appliances.

### **6.4f Activity: Cleanup Event - Clean Sweep of the Great Miami River**

**Date: 05/26/2008**

Butler County agencies participated in a volunteer stream cleanup in Butler and Hamilton Counties. Approximately 389 participants collected 9 tons of litter and 352 tires at six sites along the Great Miami River in Butler. The event was coordinated in conjunction with the Clean Sweep of the Great Miami River.

### **6.4g Activity: Tire Collection at Ross High School**

**Date: 11/01/2008**

Tire collection is sponsored by Butler County's Solid Waste Management District. The November event held at the Ross Township High School resulted in the collection of 97 tons of tons of tires.

### **6.4h Activity: Spring Clean Up Day – St. Clair Township**

**Date: 04/04/2009**

The St. Clair Township Board of Trustees will held a "Spring Clean Up Day" on Saturday April, 4, 2009 starting at 9 a.m. Road crews will picked up trash, debris and other items including tires, old car parts, refrigerators, stoves, computers, televisions, old furniture, etc.

**6.4i Activity: Spring Clean Up Day – Fairfield Township**

**Date: 05/03/2008**

The township held a special volunteer led effort that allowed residents to drop off their debris at dumpsters at four area township locations. Several businesses stepped up to help with the effort contributing dumpsters and the use of their locations. Drop off locations included Home Depot, Shoppes of Tylersville West, Fairfield Fire Department Headquarters, and Fairfield North Elementary.

**6.5 Document the decision process**

**6.5a Activity: Phase II Application & Database Information System (PADIS)**

**Date: 04/07/2008 - 04/06/2009**

The Storm Water District's annual reporting activities were recorded and documented with the use of the Phase II Application & Database Information System (PADIS) provided by the Miami Conservancy District. The decision process documentation includes individual BMP's, measurable goals, and persons responsible for the program.

## **Butler County Storm Water District Additional Bonus Activities**

### **B1**

#### **Activity Title: Watershed Signage**

**Date: 04/07/2008 – 04/06/2009**

The Butler County Storm Water District is involved with public awareness and education of the watersheds throughout Butler County. This is accomplished in part by coordinating stream crossing sign installation with public awareness and education programs. Butler County Storm Water District was responsible for installing and replacing stream crossing signage at 43 locations.

### **B2**

#### **Activity Title: Great Miami River Festival**

**Activity Description: Great Miami River Festival Committee**

**Date: 04/07/2008 – 04/06/2009**

The Butler County Storm Water District is a major sponsor and a participating member of the Great Miami River Days Festival Committee. Great Miami River Days features historical and recreational events while conservation and recreation organizations participate with hands-on displays to help citizens understand the value of the river – both as a natural resource and an economic-development tool. It is estimated that over 50,000 people attended last year's event. Since October of 2003 a member of the Butler County Storm Water District has participated in all monthly meetings. Other groups participating in the Festival Planning committee include Friends of the Great Miami; Miami Conservancy District; Hamilton SWCD; St. Clair Township, Butler County; Butler SWCD, Butler County Storm Water District; Butler County Department of Environmental Services; Land Conservancy of Hamilton County. The event is used to promote watershed education and recreational activities associated with the Great Miami River. A portion of the proceeds from Great Miami River Days will be donated to the Great Miami River Recreation Trail project, which will ultimately connect existing trails in Montgomery, Greene, Clark, Warren and Clermont Counties with Butler County. To find out more about River Days, visit <http://www.greatmiamiriverdays.org/>

### **B3**

#### **Activity Title: Mill Creek Watershed Council**

**Activity Description: Quarterly Council Meetings**

**Date: 04/07/2008 – 04/06/2009**

A representative from the Butler County Storm Water District participated in quarterly meetings of the Mill Creek Watershed Council. The purpose of the Mill Creek Watershed Council is to maintain and enhance the asset-value of the Mill Creek by providing resources to the communities and the region to realize lasting benefits. The Mill Creek Watershed Council is a publicly funded, non-profit corporation representing all 37 political jurisdictions in the Mill Creek watershed. The Council acts as a forum for making watershed-based decisions by convening and coordinating meetings and projects related to the improvement of the Mill Creek. Through these forums, the Council invites public input on watershed-related issues. The full council meets quarterly at locations throughout the watershed and creates a quarterly newsletter, Voice of the Mill Creek, that is mailed to approximately 1400 addresses throughout the watershed. Please visit the following website for additional information:  
<http://www.millcreekwatershed.org/home.html>

### **B4**

#### **Activity Title: Mill Creek Watershed Council Executive Committee**

**Activity Description: Board of Trustees Meetings**

**Date: 04/07/2008 – 04/06/2009**

A representative from the Butler County Storm Water District participated in quarterly meetings of the Mill Creek Watershed Council Board of Trustees. The Mill Creek Watershed Council's Board of Trustees is comprised of the three council officers, chairs of the standing committees and five members at large. This group coordinates activities of the standing committees and provides oversight of council activities.

**B5****Activity Title: Local restoration and habitat improvement projects****Activity Description: Stream Stabilization projects****Date: 04/07/2008 – 04/06/2009**

*West Chester Township Stream Restoration, Wetlands Improvement and Habitat Reconstruction project* (FY-2005 319 & Clean Ohio project): BCWS assisted with grant application and reporting process, as well as project funding and planning; design and construction of bio-retention basins at the West Chester Service Center site was completed in 2008. Multiple project partners include Butler County Department of Development, Butler County Water and Sewer, Butler County Engineer's Office, Butler County Storm Water District, Butler Soil and Water Conservation District, Greenacres Foundation, Mill Creek Watershed Council of Communities, Schumacher Dugan Construction and the University of Cincinnati.

*The Mill Creek Confluence Restoration Project*: The project is a collaboration between MCWCC, Butler County Water and Sewer, Metropolitan Sewer District of Greater Cincinnati, and the City of Sharonville; the Project project received a \$1.7 million Ohio Water Pollution Control Loan Fund through the Water Resource Restoration Sponsor Program (WRRSP) in late 2007. This project, to be constructed in 2009, will bring the confluence of the Mill Creek (main stem) and East Fork into attainment with Warm Water Habitat Aquatic Life Use standards.

<http://www.oki.org/elements/DOC/Environment/WaterQuality/MillCreekHeadwatersProject.doc>

**B6****Activity Title: Local restoration and habitat improvement projects****Activity Description: Five Star Restoration Grant - Wetland Extended Detention Basin Project****Date: 04/07/2008 – 04/06/2009**

Project partners continue to monitor an existing detention basin which was restored to a riparian wetland, principally to provide habitat and treat upland runoff before entering the Upper Mill Creek. The monitoring program was enacted by the partners to evaluate the efficiency of the wetland in its assimilation of pollutants following storm events. Serving as a natural method to treat non-point source runoff, the project also provides a local example of the type of palustrine environment that once existed in the Mill Creek Watershed before urban and suburban land uses dominated the landscape.

Project partners include the Butler SWCD, Butler County Stormwater District, Beckett Ridge HOA, Mill Creek Watershed Council, Ohio Department of Natural Resources, and Miami (OH) University's Institute of Environmental Sciences (IES)

**B7****Activity Title: Water Management Association of Ohio****Activity Description: Ohio Storm Water Task Force****Date: 04/07/2008 – 04/06/2009**

A representative from the Butler County Storm Water District attended Ohio Storm Water Taskforce Committee Meetings. The Ohio Storm Water Task Force is a grassroots organization made up of a wide variety of stakeholders throughout the state. Membership includes township, municipal and county officials, representatives from development organizations, state government, environmental groups, consultants and other interested persons. The group's mission is to reduce the negative impact of storm water on society and natural resources by promoting its effective management through education, leadership, watershed-based coordination, and technical assistance throughout the state of Ohio.

**B8****Activity Title: Greater Cincinnati Rain Garden Alliance****Activity Description: Steering committee and Technical Committee****Date: 04/07/2008 – 04/06/2009**

Representatives from the Butler County Storm Water District attended the Greater Cincinnati Rain Garden Alliance (RGA) steering and technical committee meetings. RGA is an initiative launched by the Mill Creek Watershed Council of Communities to promote Rain Gardens and green design in the region. The Alliance is a resource for information and technical assistance regarding rain gardens. We promote rain gardens and other natural systems as a way to help manage storm water concerns and to beautify our landscapes. The RGA is a collaboration among local governments, organizations, interested citizens, and Master Gardeners.

**B9****Activity Title: Green Initiatives - Butler County Storm Water District****Activity Description: Rain Garden Installation at Muhlhauser Barn – West Chester Township Parks****Date: 04/26/2008**

The rain garden installation was a collaboration between the Butler County Storm Water District, West Chester Township, MSP, and Girl Scout Troop 40418. The rain garden receives surface drainage from a half-acre parking lot. The rain garden is intended to serve as an education display for the public and as an example to the development community of a green initiatives that can be used in commercial applications. The township continued the “green efforts” at the park by installing a bio-swale for an additional parking lot on the opposite side of the driveway.

**B10****Activity Title: Green Initiatives - Butler County Storm Water District****Activity Description: Rain Garden Installation at Voice of America Park****Date: 04/26/2008**

Installation of the rain garden began in November of 2008. The selection and placement of plants will be completed by the end of April 2009. The rain garden is located in a high traffic area directly in front of the “Boat House” facility. The display will include educational signage and will be a great example of a residential application for rain gardens.

**B11****Activity Title: Southwest Ohio Sediment and Erosion Control Field Day****Activity Description: Construction and Post Construction BMP workshop****Date: 06/03/2008**

This event was sponsored by Butler County Storm Water District, Butler Soil and Water Conservation District, Hamilton Soil and Water Conservation District, Warren Soil and Water Conservation District, Miami Conservancy District and Warren County Career Center. Over 100 developers, home builders, engineers, contractors, and construction site inspectors attended. The format of the day included a plenary session with several guest speakers, concurrent sessions, and live outdoor demonstrations. Since its inception in 2002, this event has educated builders, contractors and other stakeholders about the importance of erosion and sediment control, storm water management, and water quality protection through the expertise of various speakers, the exhibition of hands-on demonstrations of best management practices and product vending.

**B12****Activity Title: Butler County Children’s Water Festival****Activity Description: Classroom Coordinator****Date: 10/17/2008**

The Butler County Water Festival was held October 17, 2008 at Miami University Hamilton. The "Hands on Day of Discovery" was attended by over 1,000 fourth, fifth and sixth graders, and over 100 presenters and volunteers from across Butler County. As classroom coordinator, a representative from the Butler County Storm Water District guided approximately 60 children through classroom presentations. Children learned about various topics such as watersheds, aquifers, storm water, and non-point source pollution. The Butler County Storm Water District also supported the festival financially with a donation of \$2000.

**B13****Activity Title: Green Initiatives - Butler County Storm Water District****Activity Description: OKI Regional Conservation Council’s Annual Meeting****Date: 03/31/2009**

The OKI Regional Conservation Council (RCC) is a collegial coordinating body for the nine soil and water conservation districts of Butler, Clermont, Hamilton and Warren counties in Ohio; Boone, Campbell and Kenton counties in Kentucky; and Dearborn and Ohio counties in Indiana. Through annual meetings, summer tours and other joint ventures, the RCC shares information on a variety of conservation issues and successful management practices. It serves as a friendly forum for conservation professionals and lay people elected to the conservation districts’ boards of supervisors. The Butler County Storm Water District will provide a presentation on Green Initiatives being practiced and promoted for municipal, residential and commercial applications within the District.

**B14****Activity Title: Social Marketing Research****Activity Description: Baseline Telemarketing Survey & Focus Groups****Date: 10/06/2008**

The Butler County Storm Water District has contracted with L2 Marketing Research to conduct telemarketing surveys and focus group studies. The information gathered will provide a baseline for public awareness of non-point source pollution issues and allow the district to create targeted and effective education and outreach materials.

**B15****Activity Title: Drinking Water Source Protection Plan****Activity Description: Source Water Protection Team****Date: 05/15/2008**

On May 15th, the New Miami Village Council passed a drinking water protection ordinance that empowers the village to prevent ground water contamination through zoning, vigilance and hazardous material containment rules. The ordinance is based on model legislation developed by the Hamilton to New Baltimore Ground Water Consortium for communities in Butler County. New Miami borders Four Mile Creek and the Great Miami River, just northeast of Hamilton. The village depends on three riverside wells to pump an average of 220,000 gallons daily to 3,200 customers. About 700 of those customers live north of village limits in St. Clair Township, which encompasses most of New Miami's drinking water protection area. Drinking water supplies cross many political boundaries in Butler County, creating the need for intergovernmental collaboration. This prompted OKI Regional Council of Governments to seek a federal grant from Ohio EPA and U.S. EPA, under Section 319 of the Clean Water Act. That grant funded creation of the *Drinking Water Protection Plan for the Village of New Miami*, which Ohio EPA endorsed. The plan and ordinance help protect ground water pumped by seven public water systems to more than 300,000 people in Butler and Hamilton counties. Project partners who make the joint drinking water protection effort possible are: Village of New Miami, OKI Regional Council of Governments, Hamilton to New Baltimore Ground Water Consortium, Miami Conservancy District, Butler County Storm Water District, Butler Soil and Water Conservation District, Miami University's Center for Public Management and Regional Affairs, Three Valley Conservation Trust, Hamilton County Soil and Water Conservation District, and Dr. Michael C. Miller of the University of Cincinnati. Butler County Storm Water District is finding ways to link storm water management with drinking water protection. The Ground Water Consortium and Miami Conservancy District keep track of monitoring wells that give New Miami an early warning of approaching pollutants. The Village of New Miami is one of 12 local political jurisdictions included in the Butler County Storm Water District.

**B15****Activity Title: Watershed Monitoring Network****Activity Description: Pilot Study – Four Mile Creek****Date: 05/15/2008**

The Butler County Storm Water District (BCSWD) recognizes that watershed monitoring data is fundamentally necessary to gain an understanding of the water quantity, water quality and nutrient budgets of Butler County watersheds. This project will assist BCSWD in managing water resources to meet multiple objectives within the County. Those objectives include:

- prediction of frequency and severity of floods
  - establishing quantity and quality of water for aquatic life and recreation
  - managing water use
  - developing watershed policies, procedures, and action plans for land use and development
- A monitoring network is the "backbone" for facilitating good decision-making toward comprehensive water resource management. BCSWD ultimately intends to collect countywide information to develop guidelines for future activities within its watersheds. This work will create building blocks to drive guidelines for future development within BCSWD watersheds. BCSWD and Woolpert agree that a pilot watershed monitoring project with Four Mile Creek will be invaluable for projecting BCSWD (and stakeholder) staffing, financial, and other resource needs required to extend monitoring from watershed to watershed. The pilot project will facilitate development of standard operating procedures and processes needed to improve, streamline, and ultimately replicate the processes into each additional watershed to be monitored.

# Miami Conservancy District's 2008 Phase II Stormwater Activities for Collaborating Communities

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In order to comply with Phase II Storm Water regulations, the Miami Conservancy District completed the attached list of activities in the areas of education, public involvement, and outfall identification.

Since the Butler County Storm Water District is a partner in the storm water compliance collaborative within the Great Miami River Watershed, these activities are included in the Annual Report as compliance activities.

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## **PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS**

### **Minimum Control Measure #1**

#### **1.3 Hold training opportunities for technical audiences &/or facilitate the attendance of key professionals at regional training opportunities**

In 2008, MCD staff developed and hosted a two day workshop about Low Impact Development practices for civil engineers and landscape architects who design building sites. In partnership with the local chapter of the American Society of Landscape Architects, MCD hosted nearly 100 professionals at the Baum Opera House in Miamisburg, Ohio. Trainers for the workshop were Dr. Bill Hunt and Bill Lord, both from North Carolina State University. MCD also supported workshops—in partnership with likeminded agencies—including the Southwest Ohio Sediment and Erosion Control Field Day, held in June at the Warren County Career Center. More than 100 construction erosion control professionals attended, learning firsthand about the value of controlling the quality and quantity of storm water runoff from construction sites both during and after construction.

#### **1.4 Coordinate a tour of storm water BMPs for practitioners**

Miami Conservancy District coordinated a tour of Best Management Practices. The tour included a wetland and other practices to improve water quality. Approximately 28 people attended the Best Management Practices tour.

## **PUBLIC INVOLVEMENT/PARTICIPATION**

### **Minimum Control Measure #2**

#### **2.1 Stream Team volunteer monitors collect data and report on stream health during field season**

Sponsored by MCD, the Miami Valley Stream Team is a volunteer water quality monitoring program. More than 125 volunteers were trained in Stream Team training sessions in 2008. Miami Conservancy District conducted Stream Team trainings in Mercer County, sponsored by the Mercer Soil and Water Conservation District and with Kettering Fairmont High School students, in conjunction with GREEN (Global River Environmental Education Network). Other active Miami Valley Stream Teams in 2008 include BW Greenway Community Land Trust, Tecumseh Land Trust, Honey Creek Watershed Association, and Wolf Creek Stream Team. Stream Teams are managed by local community organizations but MCD staff provides information and resources at their request. This community collaboration involves and educates the public.

#### **2.2 Great Miami River Watershed Network meets to strategize and share resources**

Miami Conservancy District staff continued to manage a quarterly meeting of the Great Miami River Watershed Network—a group of professionals and private citizens interested in improving the health of the Great Miami River Watershed. Meeting topics are selected based on Network participant input. Topics in 2008:

March: Causes and sources of surface water pollution

June: Motivating the public to prevent water pollution  
September: Annual Best Management Practices Tour  
December: Climate change and water resources in Ohio

MCD maintained information about the group's meetings on MCD's Website, including Network minutes and presentations of past meetings. This community collaboration involves and educates the public.

## **2.4 Support existing water festivals for children and the general public**

Miami Conservancy District staff participated in several festivals and Earth Day celebrations. Participation included financial sponsorship, advice, displays, and presentations. These events included:

- Dayton Children's Water Festival
- Preble County Earth Day
- Honey Creek Watershed Festival in Bethel Township (Miami County)
- Stillwater River Festival in Dayton
- Great Miami River Days in Hamilton
- Butler County Water Festival
- Five Rivers Earth Day event at Eastwood MetroPark in Dayton
- Live Green with the Greater Dayton RTA
- Dayton Daily News' Go Green! Day

These community collaborations involve and educate the public.

## **ILLICIT DISCHARGE DETECTION AND ELIMINATION**

### **Minimum Control Measure #3**

#### **3.1 Become familiar with storm sewer system**

In 2008, MCD continued to assist Phase II collaborating communities in identifying outfall locations to aide in the detection of illicit discharges. Staff created maps of outfall locations for each collaborating community within the Great Miami River Watershed. These maps were then submitted to each community to help meet the requirements of Ohio EPA's Phase II Stormwater Program.

## **BONUS EDUCATION ACTIVITIES**

### **Funds for Water Quality Improvement Projects**

Miami Conservancy District provided funds throughout the Great Miami River Watershed to help improve water quality. These projects included:

- Preservation of floodplain / riparian corridor in the City of Union and the City of Troy
- Improvement of Spill Response Programs in the Village of Lockington and Miami County
- Education program for school age children in Franklin and Carlisle (facilitated by Warren County and the City of Springboro)

### **Protecting Water Resources through Low Impact Development**

Miami Conservancy District gave birth to a new program, Building Our Future in the Great Miami River Watershed. This program was created to help communities take a closer look at how they address water resources during development and encourages the use of Low Impact Development to manage stormwater. MCD met with communities to identify areas of local zoning codes and ordinances that needed updating so that water friendly practices could be put into place.

As part of the Building Our Future program, *Protecting our Water Resources through Low Impact Development* brochures were created and distributed throughout The Great Miami River Watershed. A thousand copies of these brochures were printed and are being circulated.

### **Clean Sweep of the Great Miami River**

Miami Conservancy District participated in the Clean Sweep of the Great Miami River by

organizing a section of the cleanup, assisting in the planning and donating funds. The Clean Sweep is coordinated by a diverse group of organizations from local communities along the Great Miami River. The annual event cleans up 170 miles of the Great Miami River from Indian Lake to the Ohio River. In 2008, over 800 people participated in the clean up. This event involves and educates the public.

MCM No.	Minimum Control Measure	BMP No.	BMP's	2009	Responsibility
1	Public Education and Outreach	*1.1.1	<u>Media Awareness Packet</u>	Revise Press Release and redistribute to local media	District
		*1.1.2	<u>Education Program for Local Schools</u>	Implement K-12 program by distributing materials to schools and training educators.	BSWCD
		*1.1.3	<u>Storm Drain Labeling</u>	Coordinate program, choose locations, purchase labels, and oversee instillation of 300 labels	BSWCD
		1.2.1	Document Decision Process	Yearly documentation	District
2	Public Involvement / Participation	*2.1.1	<u>Public Meeting</u>	Set and facilitate Annual Storm Water District Public Meeting	District
		*2.2.2	<u>Stream Clean-up &amp; Monitoring</u>	Build volunteer base, facilitate and oversee Clean-Up and Monitoring activities	District
		*2.2.3	<u>Storm Water Hotline, Database, and Response Program</u>	Answer calls, build database, perform field re-con and/or interviews in a timely manner	District
		1.2.1	Document Decision Process	Yearly documentation	District
3	Illicit Discharge Detection and Elimination	3.1.1	Illicit Discharge Plan	Continue to implement illicit discharge plan and coordinate with local governments	District
		*3.1.1.1	<u>Locate Problem Areas</u>	Interview complainants, research site history, and update database	District
		3.2.1	Storm Sewer System Map with Outfalls	Annual update of GIS mapping, field work, and surveying	District
		3.3.1	HSTS List and Map	Annual update of GIS mapping, field work, and surveying	District
		3.4.1	Illicit Discharge Ordinance	Public notice and adoption of Illicit Discharge Ordinance	District Local
		3.5.1	Non-Storm Water Discharge Plan	Continue to implement non-storm water discharge plan to detect and monitor discharges	District
		3.5.1.1	Dry Weather Screening	Monitor and sample outfalls while mapping and documenting findings for 400 outfalls	District
		3.5.1.2	Chemical Field Tests	Conduct field tests, and monitor results of 200 samples in various stream miles	District
		3.5.1.3	Coordinate screening & testing plan with Local Governments	Organize Plan with Local Governments	District Local
		3.6.1	Provide information about Hazards of Illicit Discharges	Prepare and make 2 presentations to the public, government employees, and business groups	District
		*3.6.1.1	<u>Illicit Discharge Brochure</u>	Prepare, print, and distribute 200 brochures on Illicit Discharges	District
		*3.6.1.2	<u>News Releases on Illicit Discharges</u>	Prepare and distribute a News Release on Illicit Discharges	District
		3.7.1	Monitor BMP's	Review BMP's and prepare effectiveness reports as part of municipal facility pollution prevention plan	District
		3.8.1	List and Restrict Non-Storm Water Discharges	Review and update Plan and list of Non-Storm Water Discharges	District
		3.9.1	Document the Decision Process	Yearly documentation	District

MCM No.	Minimum Control Measure	BMP No.	BMP's	Year 5 (2007)	Responsibility
4	Construction Site Storm Water Runoff Control	4.1.1	Construction Control Ordinance	Review and update Ordinance and review program as needed	District Local
		*4.1.1.1	<u>Runoff Control BMP's</u>	Enforce BMP Plan	District
		*4.1.1.2	<u>Erosion Control BMP's</u>	Enforce BMP Plan	District
		*4.1.1.3	<u>Sediment Control BMP's</u>	Enforce BMP Plan	District
		4.1.2	Site Plan Review and Inspection Process	Enforce Site Plan Review and Inspection Plan and review program	District
		4.2.1	Document the Decision Process	Yearly documentation	District
5	Post Construction Storm Water Management	*5.1.1	<u>Post construction Ordinance with Riparian Corridor (RC) and Buffer Zone (BZ)</u>	Enforce RC and BZ ordinance and review program	District County
		*5.1.2	<u>Update Zoning Ordinances</u>	Implement new Zoning Ordinances	District County
		5.2.1	Document the Decision Process	Yearly documentation	District
6	Pollution Prevention / Good Housekeeping	6.1.1	Train Government Employees	Produce training materials and hold training sessions for government maintenance employees	District County Local
		*6.1.1.1	<u>Maintenance Schedule</u>	Implement Maintenance Plan and Schedule	District County
		6.1.1.2	Inspection Plan for BMP's	Coordinate with local entities to develop Plan and schedule inspection of 50% of BMP's	District County
		6.1.2	Illegal Dumping and Control Program	Continue Illegal Dumping and Control Program and incorporate Butler County Hazardous waste collection	District County
		6.2.1	Document the Decision Process	Yearly documentation	District